ARCHAEOLOGICAL TESTING IN THE SIDE YARD OF ELIGA'S HOUSE (31BW787**7), ORTON PLANTATION

Chicora Research Contribution 561

ARCHAEOLOGICAL TESTING IN THE SIDE YARD OF ELIGA'S HOUSE (31BW787**7), ORTON PLANTATION

Prepared By:
Michael Trinkley, Ph.D.
and
Debi Hacker

Prepared For:
Belvedere Property Management, LLC
1251 Avenue of the Americas, 17th Floor
New York, NY 10020

CHICORA RESEARCH CONTRIBUTION 561

Chicora Foundation, Inc.
PO Box 8664
Columbia, SC 29202
803-787-6910
www.chicora.org

May 2015
Revised October 2015

This report is printed on permanent paper ∞

MANAGEMENT SUMMARY

Extensive structural rehabilitation is proposed for the architectural site commonly known as Elijah's House (although correctly identified as Eliga's House), situated at the northern end of 31BW787**7 on Orton Plantation. This site, within the National Register boundaries for Orton Plantation and identified as a contributing resource, is a series of 19th and early 20th century domestic sites. Although the extant historic structure was the only one remaining by 1935, there were earlier a series of five structures on the edge of the rice fields, thought to represent a late antebellum slave settlement.

Part of the proposed work at the standing structure will involve the installation of a new septic tank and drain field south of the house, with the potential to disturb archaeological remains.

The management firm for Orton Plantation Holding, Belvedere Property Management, requested that Chicora Foundation examine the area of the proposed septic tank and drain field to determine if significant remains might be present.

Four days were spent at 31BW787**7 excavating two 5-foot units and 15 2-foot units laid out to examine the areas proposed for use. Fill was screened through ¼-inch mesh.

The recovered artifacts include whitewares, bottle glass, brass and porcelain buttons, glass beads, abundant machine cut nails, and other items. The ceramics include plain, annular, transfer printed, and other patterns; the bottle glass includes one nineteenth century pharmaceutical bottle; the buttons are nineteenth century varieties; and the nails are all nineteenth century – no modern wire cut nails were encountered. The beads are especially interesting since they are intimately associated with enslaved African Americans.

One post hole was encountered during the investigations.

In summary, the objects recovered are consistent with a nineteenth century slave settlement that continued to be used into the twentieth century. Twentieth century objects, however, were not very numerous, suggesting that refuse disposal practices changed over time. The density and variety of artifacts are consistent with a National Register eligible site. In addition, the presence of at least one feature also points to the significance of this site.

While the work produced an adequate sample of remains in the immediate vicinity of the proposed septic lines, any additional ground disturbing work at 31BW787**7 should involve additional archaeological investigation.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

Introduction

The Project

This investigation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Nick Dawson with Belvedere Property Management, the management firm for Orton Plantation Holding. The work was conducted to examine and explore the archaeological remains associated with the south side yard of what has become known as Elijah's House (31BW787**7), a nineteenth and early twentieth century structure at Orton Plantation. The investigations were conducted in anticipation of structural rehabilitation that included the installation of a new septic system in this side yard.

As will be discussed in more detail below, research has identified that Elijah, sometimes referred to in oral history as the head slave at Orton. In fact, the occupant for whom the structure is named was Eliga (pronounced e-lie-gee) Robbins, a white worker at Orton during the twentieth century. This illustrates that while oral history and folklore can be valuable historical tools, they should always be subject to careful verification.

The site is situated in eastern Brunswick County, south of Wilmington, North Carolina in neighboring New Hanover County (Figure 1). It is

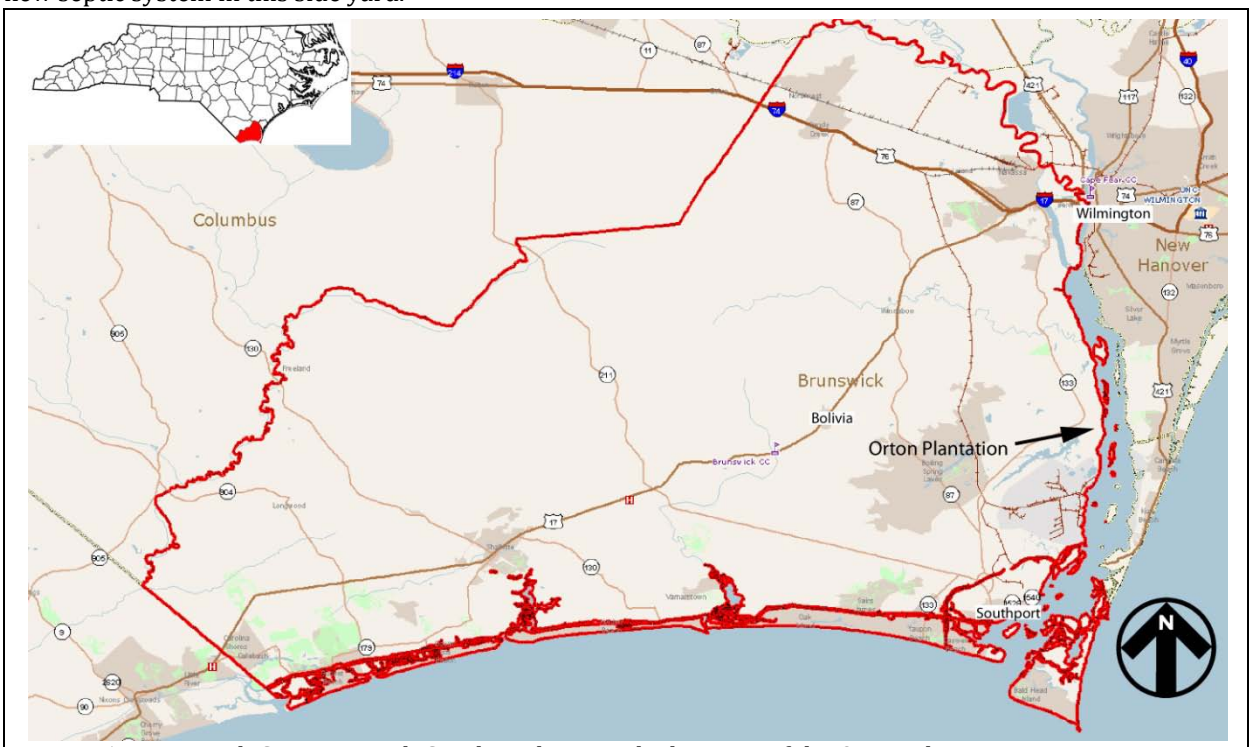


Figure 1. Brunswick County, North Carolina showing the location of the Orton Plantation.

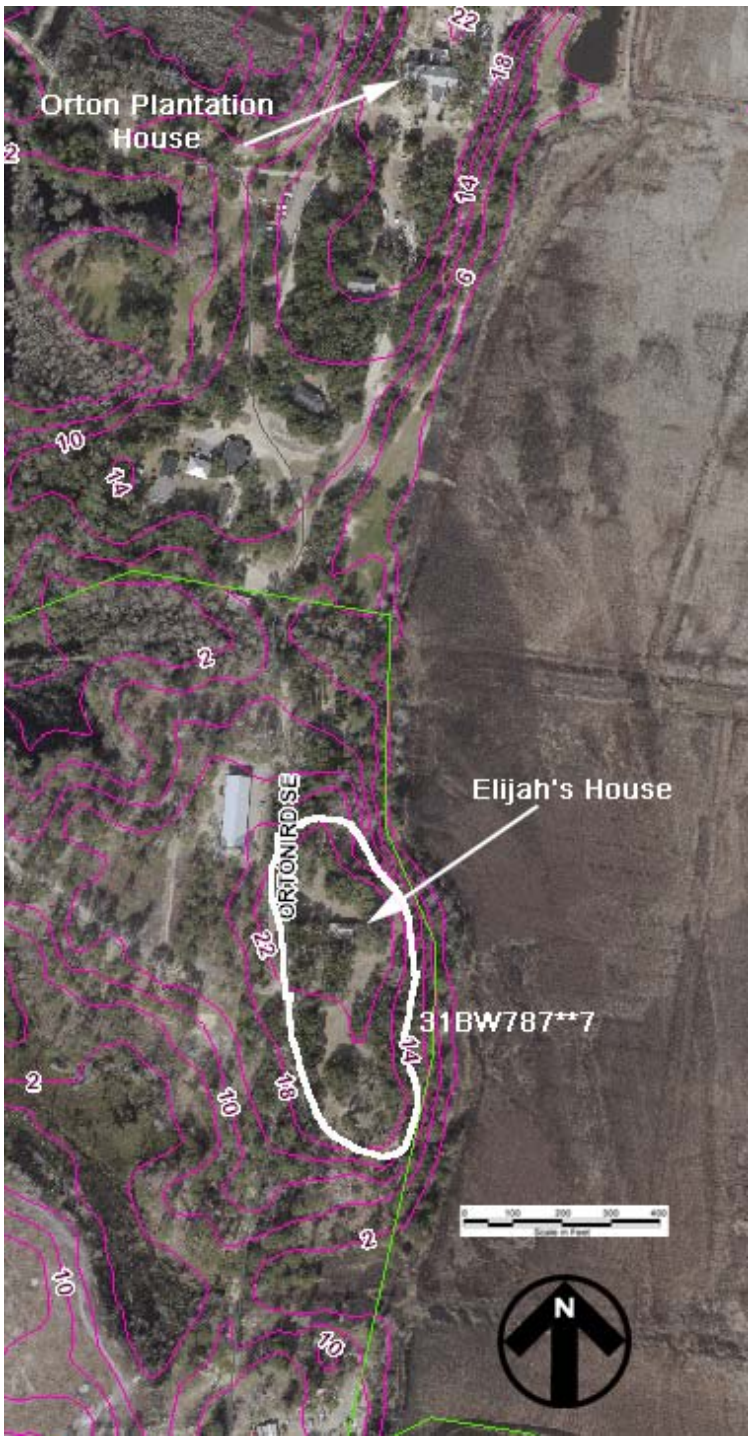


Figure 2. Orton Plantation showing the main house and Eliga's (Elijah's) House.

located on the original 3,000 acre Orton Plantation assembled by its first owner, Roger Moore, between 1728 and 1729. Today the property is owned by Moore's descendant, Louis Moore Bacon under the name of Orton Plantation Holding, LLC.

The current holdings, over 8,500 acres, comprise much of the land along the Cape Fear River north of Sunny Point and about 11 miles south of Wilmington, North Carolina. Elijah's House is located about 1,200 feet south of the Orton Plantation house, on a terrace overlooking the plantation's rice fields and the Cape Fear River beyond.

Chicora has previously conducted historic research and reconnaissance level archaeological studies (Trinkley and Hacker 2012) at Orton. In addition, investigations are being conducted at the plantation's cemetery (31BW787**2; Trinkley and Hacker 2014).

The site was identified as North Carolina archaeological site 31BW787**7 as a result of Chicora's 2012 study, although the structure was well known to the local community and had even appeared in several motion pictures. The site was recommended eligible for inclusion in the National Register of Historic Places as an archaeological site for the data it contains and was included in the revised Orton Plantation National Register boundaries as a contributing resource (Knott et al. 2013).

The standing structure is situated on a sandy rise at an elevation of about 22 feet above mean sea level (AMSL). The topography slopes down gradually to the north,

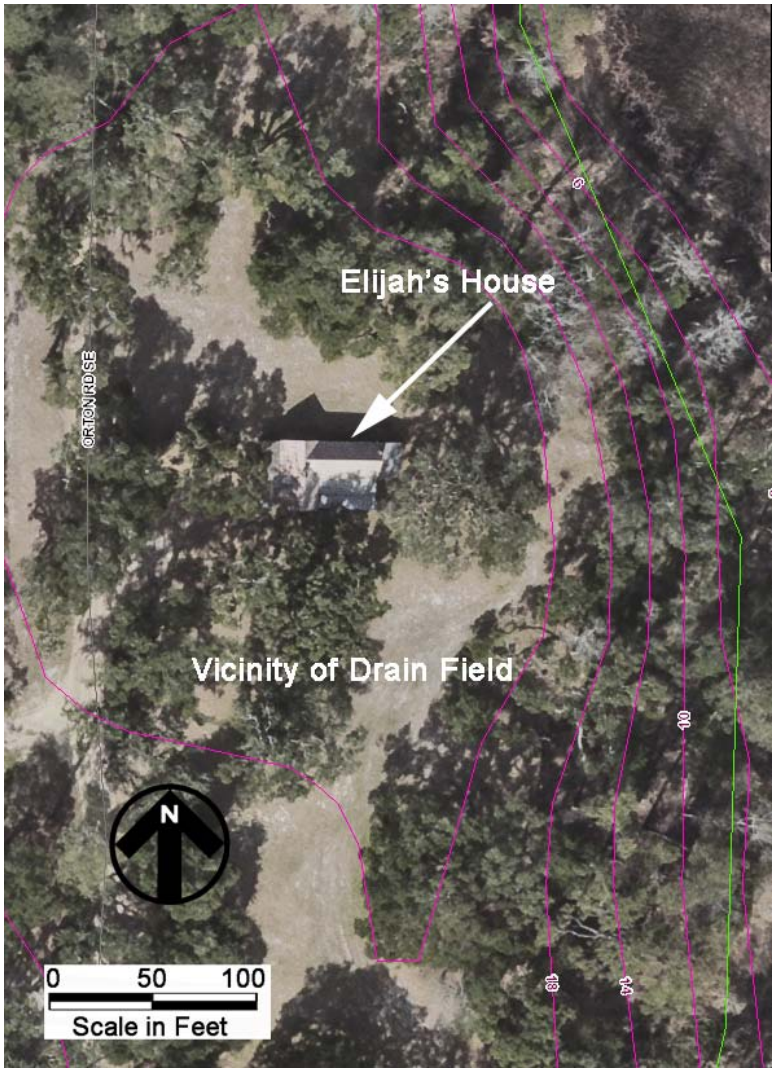


Figure 3. Eliga's (Elijah's) House situated on the sand bluff overlooking the rice fields to the east.

toward a waterway for control of the rice fields to the east. There is a more gradual slope westward, toward an interior area of low, boggy soils. The topography drops off quickly to the east, into the rice fields. To the south there is a similar gradual slope to another rice field drain, historically called Cow Bridge Branch.

While there may have been some modern modifications, these are not readily visible. There are, however, several small rises in the field south of Eliga's House and these may represent the location of structures documented on period maps. Vegetation today includes live oaks and grass.

The work proposed consisted of excavating a new waste line from the house to a septic tank south of the house, measuring approximately 6 by 5 feet. A line then would be placed from the septic tank to a junction box in the south yard. This junction box measures about 2 to 3 feet square. From there two lines would branch out to a drain field. The locations of these features were identified by the local construction crew and formed the basis for the excavations conducted by Chicora Foundation.

Site Details

Archaeological site 31BW787**7 was identified as measuring about 1,000 feet north-south by 600 feet east-west and was thought to represent a nineteenth century slave settlement based on artifacts.

The earliest identified map of this area dates to 1863 (*Preliminary Chart of Frying Pan Shoals*) and illustrates what appear to be a series of slave dwellings parallel to the rice fields. By 1878 (Coast Chart T-1464a) there are two structures shown between the road and rice fields. The more northerly structure is thought to be Eliga's House; the structure to the south is today no longer present. By 1932 only Elijah's House was still standing and it appears to have been used well into the twentieth century.

The house is named for Eliga Robbins, a white estate carpenter who was its last occupant. A similar structure was also used by John Batchelor and his wife Eve. Batchelor was a superintendant of Orton during the late 1920s and early 1930s. Eliga Ander Robbins was born in

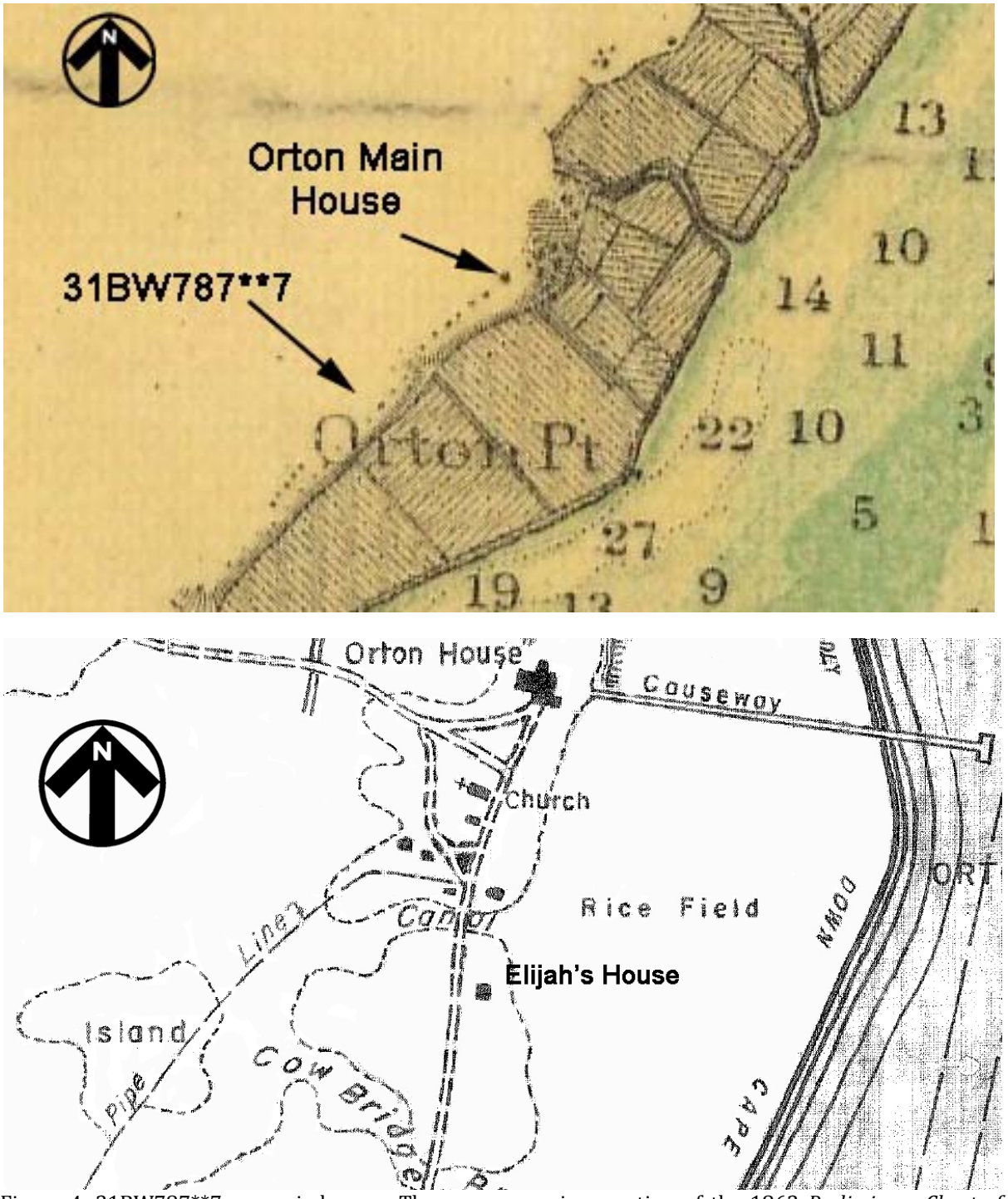


Figure 4. 31BW787**7 on period maps. The upper map is a portion of the 1863 *Preliminary Chart of Frying Pan Shoals* showing the site area with multiple structures. The lower map is a portion of the 1939 plat of Orton showing that only Eliga's (Elijah's) House was present by that time.

1818, the son of Thomas (known as Tom W.) and Della Robbins. The 1940 census lists his father as a farm laborer. Born in Southport, he subsequently lived in the Town Creek area and again in the Smithville or Southport area. In 1941 he enlisted in the U.S. Army, serving in Germany. In 1944 Eliga married Ethel Mae Bogie in Conway, South Carolina. Shortly after the war Eliga began working at Orton providing carpentry and general maintenance. He continued working on the plantation until his retirement, although he moved off the plantation about 1965 (Kevin Robbins, personal communication 2015).

The standing structure is sheathed with board-and-batten siding which extends up to roof level at the rear gable ends. The gable end has been resided with modern weatherboard; the opposite end is clad in similar wood shingle, without a vent opening.

The porch has a shed roof, but it is separate from the main roof, resulting in a porch with a low ceiling. The roof structure at the rear porch is separate from the main roof. Roofing is metal.

The central chimney is nicely detailed with corbeled banding and appears to be the original configuration. The structure has a smaller exterior chimney or flue at the rear elevation associated with the added kitchen. The single and double window openings retain wood sash with 6/6 lights.

Foundation piers that are visible are brick, although the central chimney is built on ballast stone, possibly salvaged from Brunswick Town to the south of Orton. It is likely that the structure was built during the mid-nineteenth century, although it was altered numerous times during its history.

The structure is an interesting example of employee housing in a rural area. With a four-room plan much more spacious than the small dwellings commonly built for tenant farmers or sharecroppers, it appears to be as substantial as the houses of moderately-successful farmers who worked their own land, and would not have been out of place in a textile mill village. Paired front rooms with separate entry doors, each with a fireplace, would have allowed one room to be set aside for "company" while the other side of the house provided spaces for sleeping, cooking, and eating.

Oral history reveals that during Eliga's tenure, one of the front rooms was used for a living room and the other was used for a bedroom (Kevin Robbins, personal communication 2015).

The interior has beaded-board paneling at walls and ceilings, wood flooring, and simple fireplace hearths that appear to be concrete poured in place. Like the paneling, the six-paneled doors and simple fireplace mantels of paneled wood with deep narrow shelves are building elements that could readily be sourced in Wilmington or another city during the late nineteenth and early twentieth centuries.

The infill along the south side obscures the original back porch, and a room has been added behind the north wing. These changes have not obscured the historic design or fabric of the building, which is worthy of preservation and further study.

We are informed that a NC SHPO architectural historian speculated that the structure began as a single room with chimney at the north gable and evolved with the addition of a second room to the south. This involved the creation of back to back fireplaces. This fireplace has a foundation built using ballast stones. Eventually a third room was added to the east of the original core. The final stage involved additions again extending east, with the creation of porches to the south. Many of these modifications can be seen in the as-built plans for the structure (Figure 5).

Oral history reveals that indoor plumbing and bathrooms were added to Eliga's house, and several other worker cottages, about 1956 (Kevin Robbins, personal communication 2015).

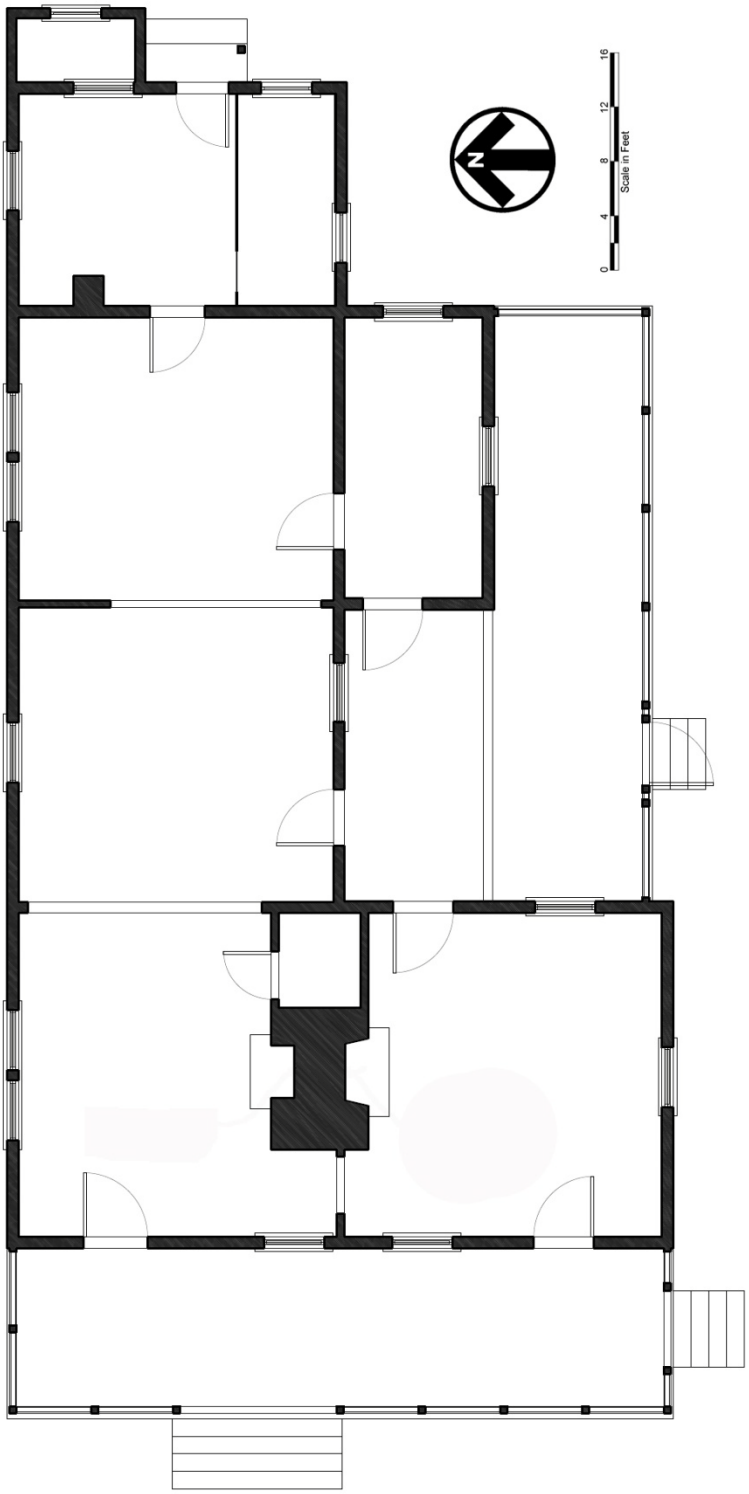


Figure 5. Plans of Eliga's House (courtesy of Belvedere Property Management, LLC).

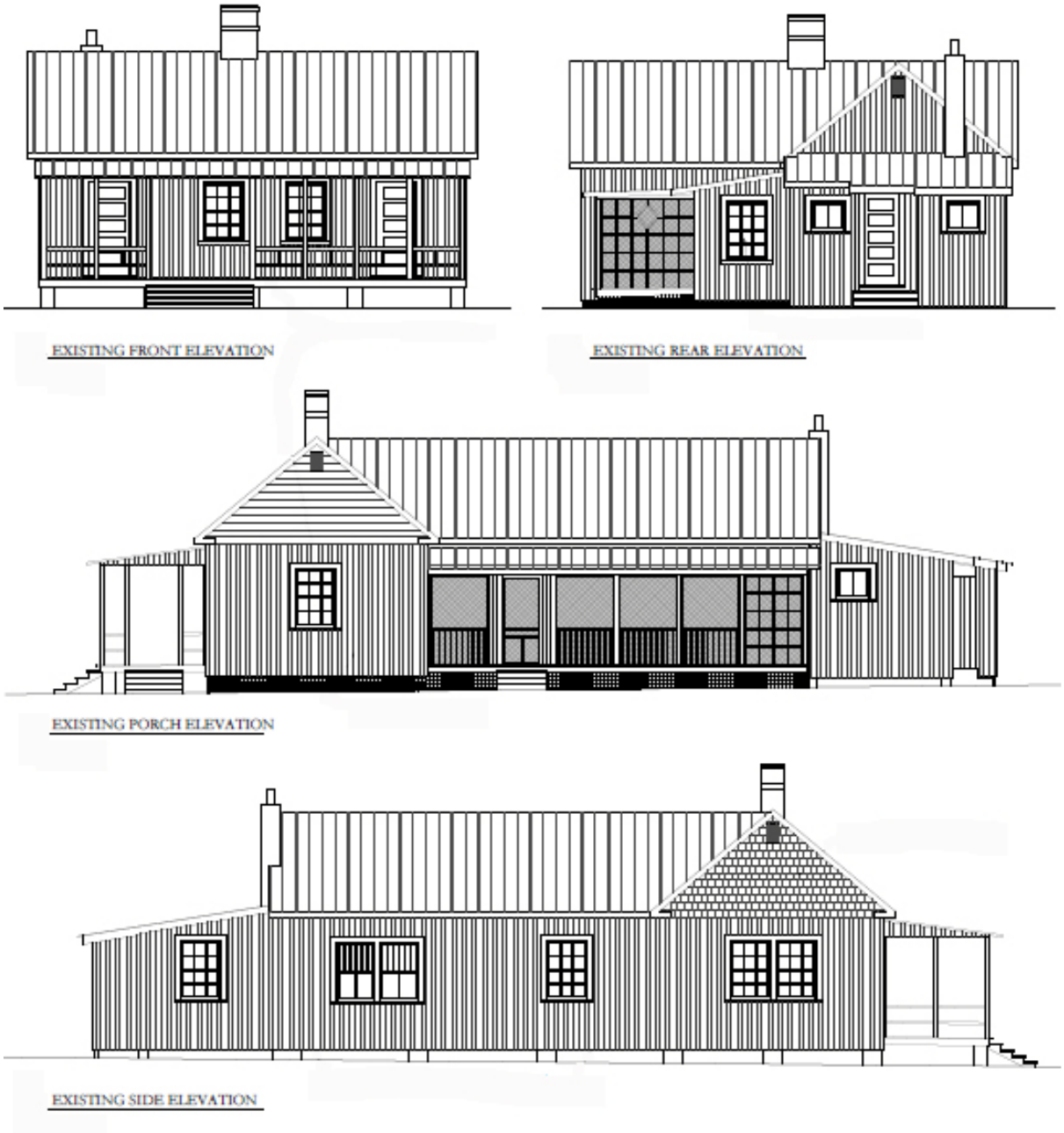


Figure 6. Elevation views of Eliga's House (courtesy of Belvedere Property Management, LLC).

Figure 7. Standing structure at 31BW787**7. Top photograph is an oblique view to the southeast. Below is a view of the front, looking east.

Figure 8. Orton structures similar to Eliga's House at 31BW787**7. The upper photo shows the house at 31BW787*12 that accidentally burned. The lower left photo is a house on the west side of NC 133. The photo on the right shows a house sold and moved off Orton, probably when Sunny Point was created. It is situated on the east side of NC 133, south of Kendal Chapel, and is today abandoned.

The initial archaeological study included 11 shovel tests, with 10 of these tests producing 110 specimens. Included were 12 poly hand-painted overglazed Chinese porcelains, annular pearlwares, and undecorated whitewares.

These remains span the early to late nineteenth century and are consistent with a late antebellum slave settlement.

The contribution of late nineteenth century specimens, primarily architectural remains, produced an artifact pattern that is similar to the late nineteenth and early twentieth century yeoman or tenant pattern (Trinkley and Hacker 2012:187).

Comparisons

Eliga's House is only one of several similar structures originally found on Orton Plantation. A second structure, accidentally burned, was originally located to the south (31BW787**12). We have been told that an African American woman lived in this structure for a very long time (Kevin Robbins, personal communication 2015).

A third is situated off the Orton survey tract and in dilapidated condition. A fourth was moved off the plantation, likely when Sunny Point was constructed and a buffer zone was created in which no occupation was allowed.

The photo of the burned house at 31BW787**12 shows the original configuration of the extant building. The long sides of the rectangular core present the front façade and rear of the dwelling. The lateral gabled roof is fairly steeply pitched above the narrow side elevations, and has a brick central chimney rising through the ridgeline. A rear gabled wing one room wide gives the dwelling an L-shape. The height of the wing is slightly lower than the front core, so that the ridgelines are not engaged with each other. At the inside of the rear ell, a narrow porch with a hipped roof covers rear door openings from each wing.

The house was sheathed with board-and-batten siding which extended up to roof level at the rear gable ends. It had wood-shingle siding and a small peaked vent at the main gable end visible in the photo.

The shed roof structure of the porch of the burned house was formed as an extension of the slope of the main roof. The roof structure at the rear porch is separate from the main roof. Roofing is V-crimped metal.

The central chimney is nicely detailed with corbeled banding, but appears to have had its upper section replaced or extended with newer brick. It had a smaller exterior chimney or flue at the rear elevation. The single and double window openings had wood sash with 6/6 lights.

The visible foundation piers are formed concrete. This might indicate that the house was moved at some point, but it seems more likely that the foundation was shored up or reinforced.

Additional structures associated with Orton Plantation all reveal similar construction features, suggesting that a theme or centralized plan was used. It remains uncertain if all of these structures exhibit a central core that may be suggestive of an antebellum construction date. Knott and her colleagues (2012) believe these structures may reflect improvements to the plantation made during the tenure of Kenneth Murchison between 1884 and 1904.

Curation

The field notes and artifacts from Chicora's investigations will be curated by the North Carolina Office of State Archaeology. The artifacts have been cleaned and cataloged following their provenience system. All original records and duplicate records will be provided to the curatorial facility on pH neutral, alkaline buffered paper. Photographic documentation is entirely digital. Copies of all photographs were provided as tiff images.

Methods and Results

Field Methods

To provide horizontal control at the site we used a modified Chicago-style grid, assigning arbitrary designations to the units. Vertical control was based on depth below the ground surface. A permanent datum was not established since the site area was very level and the work was limited.

Units were laid out to coincide with the proposed location of the septic tank, junction box, and various lines (Figure 10). Chicora has adopted engineering measurements (feet and tenths of feet) for consistency in its work, especially on European sites where structural measurements are most often in feet. The minimal excavation unit was a 2-foot square.

Figure 9. Troweling Test Unit 10.

Formal excavations at the site were conducted by hand, using roller screens fitted with ¼-inch mesh.

Excavation extended to the subsoil, typically a brownish-yellow (10YR6/6) sand that ranged from about 0.5 to 1.0 foot below grade. A typical profile consisted of 0.2 to 0.4 foot of black (7.5YR2.5/1) sand overlying a brown (7.5YR4/4) sand zone that ranged from only 0.1 to 0.8 foot in depth. Artifacts were found in both the black and brown soil zones, although they were most numerous in the brown sand and were found pressed into the upper 0.2 foot of the brownish-yellow subsoil.

It appears that the brown sand represents yard sand or deposits during the period that the structures on the site were most intensively occupied. The upper black humus is more recently formed and includes not only antebellum, but also postbellum and modern remains.

All materials except brick, mortar, and shell were retained by provenience. Rubble and shell were noted and discarded on-site.

All units were troweled and profiles drawn. Only the 5-foot units were photographed at the base of the excavations. The exception to this occurred when a posthole was identified bisected by two

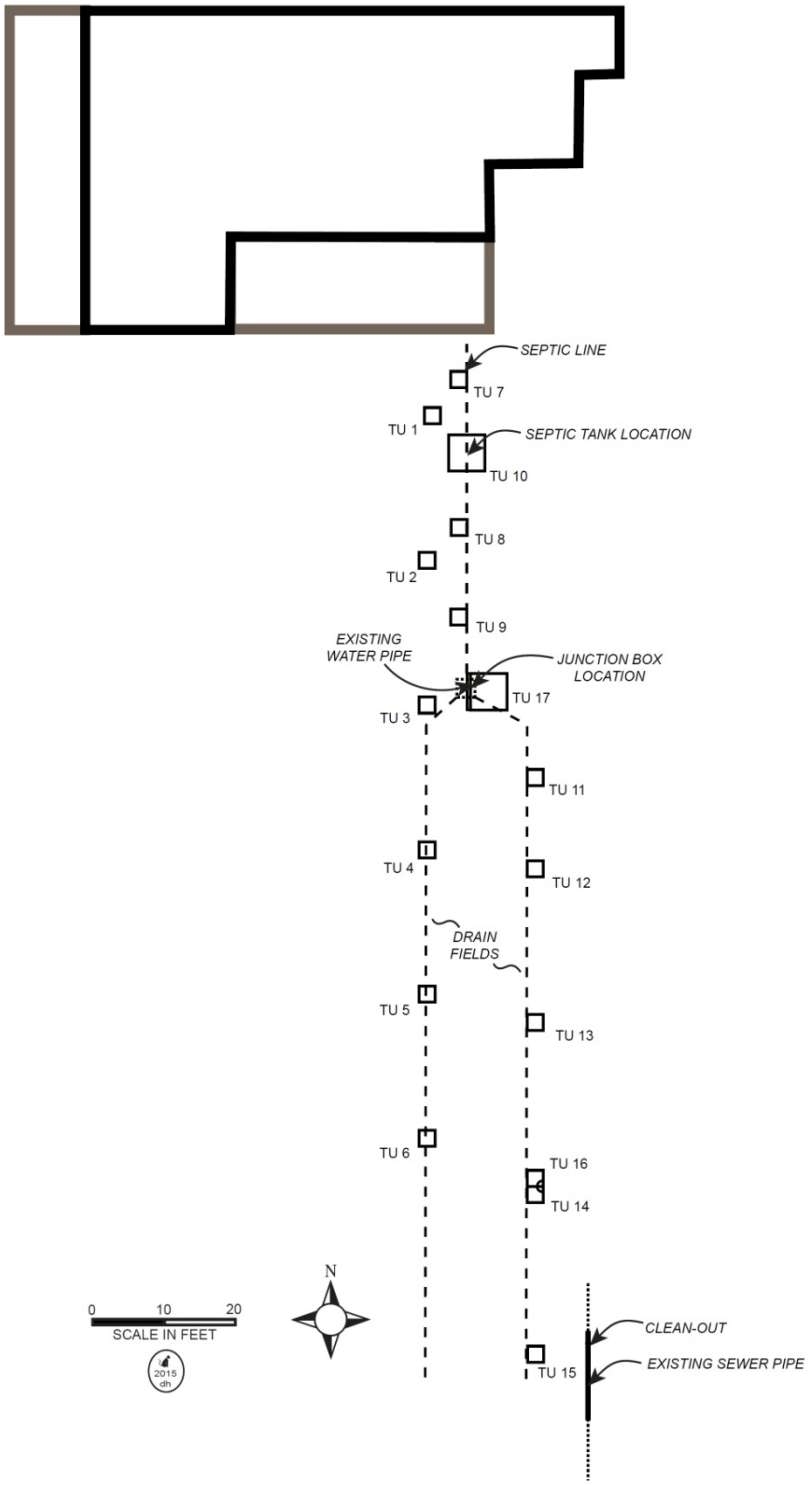


Figure 10. Plan of excavations at Eliga's House (31BW787**7).

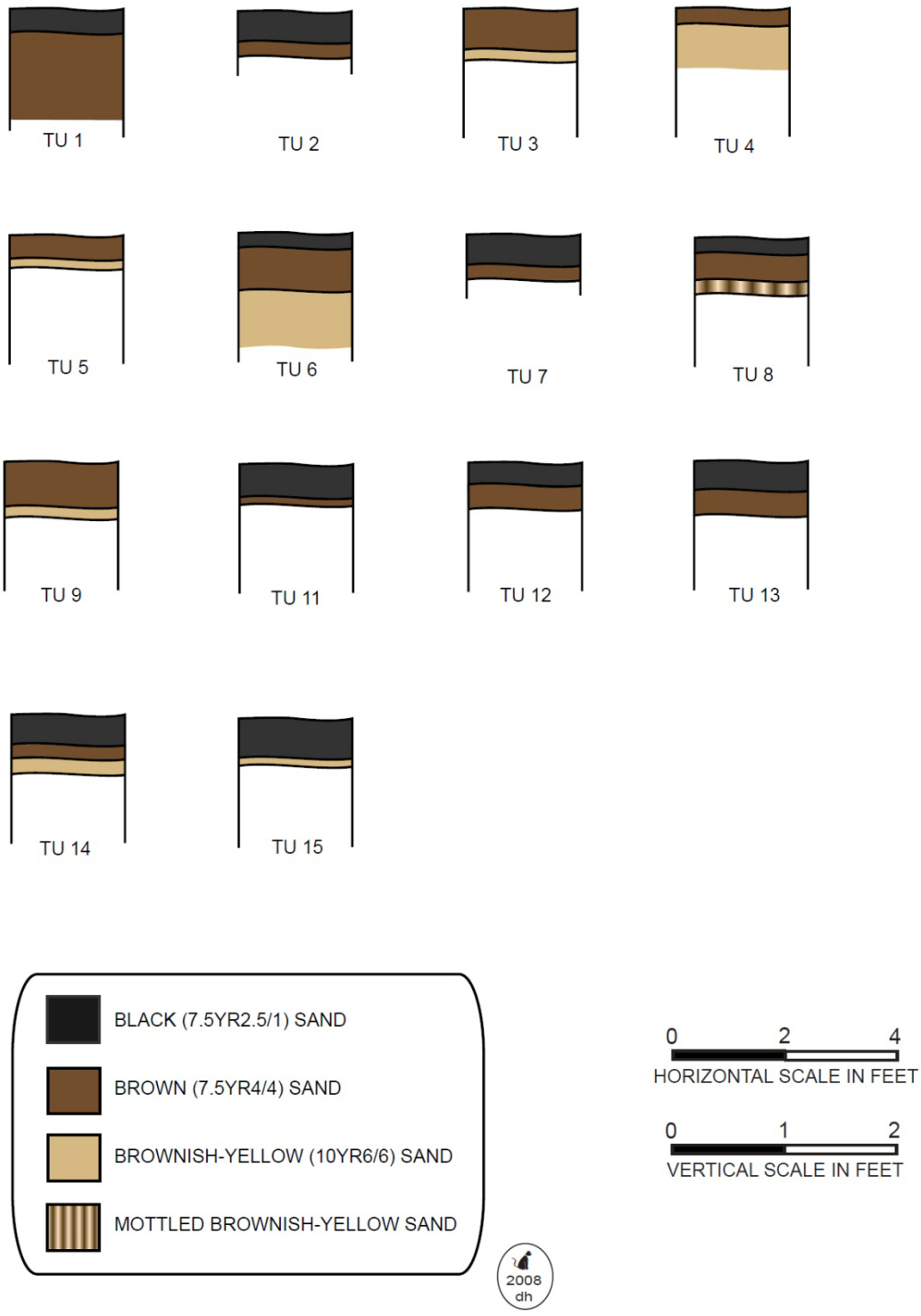


Figure 11. Profiles of 2-foot unit excavations at Eliga's House (31BW787**7).

2-foot units (Test Units 14 and 16).

This posthole was excavated and the fill screened through ¼-inch mesh.

As a result of this work, 14 2-foot units and two 5-foot units were excavated, totaling 106 ft^2. A total of 72.3 ft^3 was excavated in primary work.

Excavation Results

The fourteen 2-foot units sampled the immediate area to be trenched for the placement of pipe from the house to the septic tank, from this tank to the junction box, and from the junction box into the leach field. The two 5-foot units examined the areas designated for the placement of the septic tank and the junction box.

The septic tank was identified as measuring about 6 by 5 feet, so the excavation unit examined over 80% of this feature. The junction box was shown as only 2-feet square, so the excavation easily examined this feature and allowed for some adjustments as might be needed.

While considerable mottling was found at the base of most excavations, suggestive of intense occupation, no features were encountered. One posthole was recovered, originally in Test Unit 14 and more fully exposed with the excavation of Test Unit 16 to the north (Figure 11). These two 2-foot units revealed a posthole measuring 2-feet in diameter, with a post mold measuring about a foot square. Upon excavation the posthole was found to be about a foot in depth with a rounded bottom.

The two 5-foot units both revealed mottled subsoil and, as described previously, the brown sand zone seems to represent occupied yard sands that contained abundant discarded trash.

At the base of Test Unit 17 we identified a 2-inch corroded pipe running north-south and its associated trench. We presume this line provided water to Eliga's House, although we do not know where it originated. As previously discussed, oral history indicates indoor plumbing was added about 1956 and this is consistent with the materials identified in this study.

Figure 12. Test Units 16 (left) and 14 (right) looking east at the base of excavations. Posthole 1 is shown in the middle.

Laboratory Methods

Processing was conducted at Chicora's labs in Columbia. During the washing, artifacts were sorted by broad categories – pottery, lithics, bone, ceramics, glass, iron, and other materials. Upon drying, the artifacts were temporarily bagged by these categories, pending cataloging. The materials will be curated at the North Carolina Office of State Archaeology. The collection has been cataloged using that institution's current accessioning practices.

Analysis of the collections followed professionally accepted standards with a level of intensity suitable

Figure 13. Excavations. Top photo is Test Unit 10. Bottom photo is Test Unit 17 with a water pipe and its trench. Note also the extensive mottling in the subsoil. Both photos are looking south.

to the quantity and quality of the remains.

The temporal, cultural, and typological classifications of the historic remains follow such authors as Cushion (1976), Godden (1964, 1985), Miller (1980, 1991), Noël Hume (1978), Norman-Wilcox (1965), Peirce (1988), Price (1970), South (1977), and Walton (1976). Glass artifacts were identified using sources such as Jones (1986), Jones and Sullivan (1985), McKearin and McKearin (1972), McNally (1982), Smith (1981), Vose (1975), and Warren (1970). Additional references, where appropriate, will be discussed in the following sections.

The analysis system used South's (1977) functional groups as an effort to subdivide historic assemblages into groups that could reflect behavioral categories. Initially developed for eighteenth-century British colonial assemblages, this approach appears to be a reasonable choice for even early nineteenth century materials since it allows ready comparison to other collections. The functional categories of Kitchen, Architecture, Furniture, Personal, Clothing, Arms, Tobacco, and Activities provide not only the range necessary for describing and characterizing most collections, but also allow typically consistent comparison with other collections.

Mean dating relies on South’s (1977) mean ceramic dating technique, using primarily the mean dates that he has developed.

Artifacts

The artifacts recovered from the excavations at 31BW787**7 include a wide range of primarily nineteenth century, low status materials. These items are itemized by South's functional artifact groups and excavation unit in Table 1.

Of the 1,294 recovered artifacts, over half kitchen group artifacts (713 or 55%). The next largest assemblage consists of architectural remains such as nails and window glass (547 or 42%).

Kitchen Artifact Group

Ceramics and Site Dating

Only ten late eighteenth and early nineteenth century ceramics, such as Chinese porcelain, creamware and pearlware, are present in the assemblage. Far more common are the mid- to late-nineteenth century whitewares, which contribute 117 items to the ceramic assemblage. The remainder of the ceramics, such as white porcelains and stonewares, do not have especially tight dates, although they, too, are very likely from the mid-nineteenth century.

Ceramics that have recent date ranges, such as the tinted glazed whiteware (1911-1970, mean date of 1941) or decalcomania whiteware (1901-1950, mean date of 1926) are either absent or only minimally represented. This may suggest only limited mid- to late twentieth century occupation.

To date the collections we have relied on South's (1977) mean ceramic dating technique, using primarily the mean dates that he has developed. This technique (Table 2) produces a mean date of 1854, which seems too old given the totality of the assemblage, although it may certainly indicate an early occupational span. Moreover, as Wesler (2014) has pointed out a mean date may have a much larger range of uncertainty than at first realized. As he suggests, we have calculated the standard deviation for this mean date, yielding 53 years. This extends the mean date from roughly 1800 through 1900, or the entire nineteenth century.

It thus becomes even more important than usual to examine the occupation span reflected by the ceramics. One method used to determine the occupation span of the excavations is South's (1977) bracketing technique. This method consists of creating a timeline where the manufacturing spans of the various ceramics are placed. Determining where at least half of the ceramic type bars touch places the left bracket. The right bracket is placed the same way, however, it is placed far enough to the right to touch at least the beginning of the latest type present (South 1977:214). We have chosen to alter South's bracketing technique slightly by placing the left bar at the earliest ending date when that ending date does not overlap with the rest of the ceramic type bars. As a result, Table 3 reveals a date range of about 1825 through 1900. This only modestly refines the standard deviation obtained for the mean ceramic date.

Since South's method only uses ceramic types to determine approximate period of occupation, Salwen and Bridges (1977) argue that ceramic types that have high counts are poorly represented in the ceramic assemblage. Because of this valid complaint, a second method – a ceramic probability contribution chart – was used to determine occupation spans. Albert Bartovics (1981) advocates the calculation of probability distributions for ceramic types within an assemblage. Using this technique, an approximation of the probability of a ceramic type

Table 1.
Artifacts Recovered from 31BW787**7

	TU 1	TU 2	TU 3	TU 4	TU 5	TU 6	TU 7	TU 8	TU 9	TU 10 lv 1	TU 10 lv 2	TU 11	TU 12	TU 13	TU 14	TU 15	TU 16	TU14/16 PH 1	TU 17	Surface		
Kitchen Group																					713	55.1
Chinese porcelain, poly HPOG										1	1											
White porcelain, undecorated										2	2								2			
White porcelain, decal													1									
Creamware, undecorated	3																		1			
Pearlware, annular																			3			
Pearlware, blue edged																			1			
Whiteware, undecorated		1	8	3			3	2	4	13	8	1	2	4		2	5		26	12		
Whiteware, sponge									1													
Whiteware, blue-green hand painted																			1			
Whiteware, blue hand painted																			2			
Whiteware, annular				1								1	1						1	1		
Whiteware, blue edged														1					1			
Whiteware, blue transfer printed											1				1		1					
Whiteware, decal										1									1			
Yellow ware, undecorated				1								1			1				2	1		
Agate ware													1									
Gray SG SW																				1		
Brown SG SW					1						1								3			
Albany slip SW					1																	
Alkaline glazed stoneware																			1			
Burnt refined earthenware																			2			
Glass, black			3	1	1	1	1			1	3	1	1			1			7			
Glass, aqua	1	3			1		5		1	16	4	3	1	1	3				23	3		
Glass, green		1						1		2									2			
Glass, light green	6	2	3	2	1	2			4		8	2	3	1					11			
Glass, other	1		4	2	2		1	6	1	13	8		3	2					25			
Glass, clear	31	5	5	4	1	1	4	7	10	84	67	5	2	3	2		1		51	1		
Glass, milk								1														
Glass, manganese		4	3	1			2	6	5	6	6	2				2	5		34	2		
Kitchenware											1											
Architecture Group																					547	42.3
Window glass	2	3	2	3			1	2	3	19	9	1	3		1				17	2		
Slide bolt																			1			
Spikes, machine cut							1															
Nails, wire	2	2					2	2	1	9	6											
Nails, machine cut	9	3	5	6	5	2	8	4		14	34	2		1	4	1			4			
Nails, UID	7	14	10	12	8	2	10	11	13	46	68	14	5	7		1	3	3	117			
Furniture Group																					0	0.0
Arms Group																					4	0.3
Percussion cap											1											
.22 brass shell							1															
.32 brass shell											1											
Shotgun shell base											1											
Tobacco Group																					5	0.4
Pipe bowl fragments	1								1		1				1							
Stub stem pipe bowl fragments																			1			
Clothing Group																					9	0.7
Buttons											2								1	1		
Suspender clasp, brass																			1			
Gromet											1		1	1								
Hairpin, iron																			1			
Personal Group																					2	0.2
Beads										1									1			
Activities Group																					16	1.2
Flat file	1																					
UID iron frags								2														
Staple										2			1									
Doll face																			1			
Phonograph record frag																			1			
brass frag											2								1			
slate frag										1									1			
eye screw										1												
ferrous wire										1												
lead frag										1												
TOTAL	64	38	43	36	21	8	39	44	44	233	235	33	25	21	13	7	15	3	348	24	1,294	

contribution to the site's occupation is derived. This formula is expressed:

$$Pj/yr. = \frac{fj}{F \times Dj} \text{ where}$$

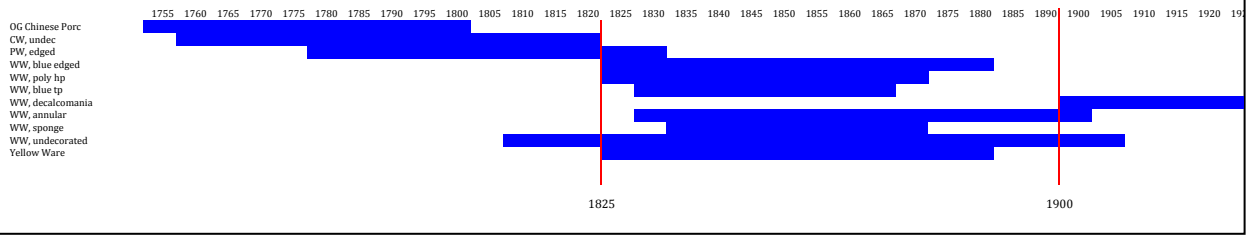
Pj = partial probability contribution
fj = number of sherds in type j
F = number of sherds in sample
Dj = duration in range of years.

Bartovics' probability distribution suggests occupation perhaps beginning about 1760, although the core occupation occurs between 1810 and 1900 (Table 4).

Table 2.
Mean Ceramic Date for 31BW787**7

Ceramic	Date Range	Mean Date (xi)	(fi)	fi x xi
Overglazed enamelled porc	1660-1800	1730	2	3460
Creamware, undecorated	1762-1820	1791	4	7164
Pearlware, edged	1780-1830	1805	1	1805
Pearlware, annular/cable	1790-1820	1805	3	5415
Whiteware, blue edged	1826-1880	1853	2	3706
Whiteware, poly hand painted	1826-1870	1848	4	7392
Whiteware, blue trans printed	1831-1865	1848	3	5544
Whiteware, poly decalcomania	1901-1950	1926	2	3852
Whiteware, annular	1831-1900	1866	5	9330
Whiteware, sponge/splatter	1836-1870	1853	1	1853
Whiteware, undecorated	1813-1900	1860	94	174840
Yellow ware	1826-1880	1853	6	11118
Total			127	235479
Mean Ceramic Date	1854.2			

Table 3.
South's Bracketing Date for 31BW787**7



Thus, multiple dating techniques suggest a terminal date of 1900, although there are differences regarding an initial date, ranging from as early as 1760 to perhaps as late as 1820. Regardless, all three dating methods suggest an occupation from the mid-nineteenth century through the very early twentieth century. All of these techniques also closely resemble the standard deviation obtained from the mean date. It is worth examining these dates in light of other artifacts present in the yard assemblage.

Glassware

While the kitchen assemblage includes a large number of fragments, most are too small to allow any detailed analysis. For example, the 21 fragments of "black" glass are small and do not include any bases or necks. Lacking details on closures and diameters, their function cannot be readily determined, although they most likely held either wine or ale originally. They may, however, have been re-purposed for water bottles by African Americans.

In the "other" category are a variety of glass colors, including brown, iridescent purple, bright green (likely modern Sprite® soft drink fragments), and melted glass.

Table 5 identifies 26 containers in the assemblage by function. Most common are bottles, followed by tumblers. Jars and bowls are almost as common. Also present is one ointment jar and three pharmaceutical containers. The manganese glass is suggestive of dates between the last quarter of the nineteenth century and WWI (Jones and Sullivan 1985:13).

The one mark found in the assemblage is "Duraglas," a proprietary name for a type of glass made by the Owens-Illinois Glass Company. While still made today, the name was applied only between 1940 and the mid-1950s (Toulouse 1971).

Other Kitchen Items

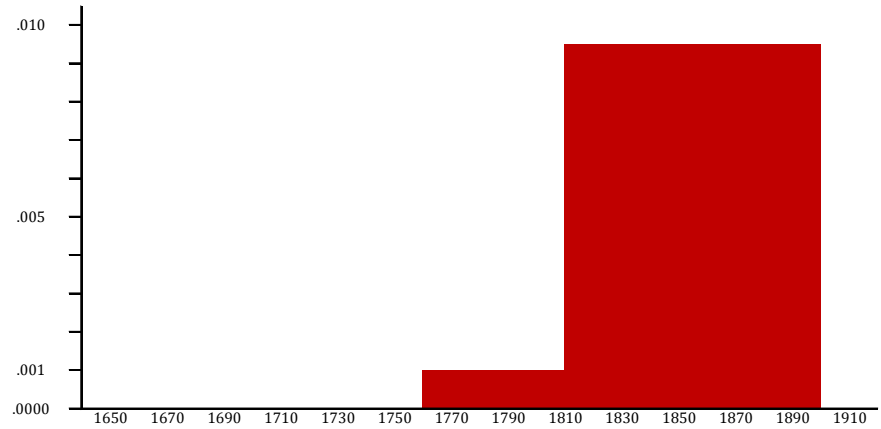
An item worth brief mention is a brass fragment stamped "Huyler's" found in Level 2 of Test Unit 2. Huyler's was once the largest and most prominent chocolate and candy maker in the United States. It began in 1876 and by 1915 the company was operating in 24 cities, producing over 1,600 different kinds of candy. By 1951, Huyler's filed for bankruptcy (Walkowski 2011).

During the height of their operations, apparently between at least the 1890s and 1910s, the company provided candy tongs stamped with their name, either within or on the outside of their candy boxes. The tongs were apparently distributed flattened and were folded by the user.

The specimen from 31BW787**7 represents perhaps the only example found in an archaeological context; only one intact specimen has been reported in the literature (https://queenofsienna.wordpress.com/2013/09/20/huylers-candy-tongs/).

Table 4.
Ceramic Dating Using Salwen and Bridges (1977) and Bartovics (1981)

Ceramic	Date Range	Duration (Dj)	# sherds (fj)	Total # sherds (F)	Partial Prob. Cont. (Pj)
				126	
Overglazed enamelled porc	1660-1800	140	2		0.000
Pearlware, edged	1780-1830	50	1		0.000
Pearlware, annular/cable	1790-1820	30	3		0.001
Whiteware, blue edged	1826-1880	54	2		0.000
Whiteware, poly hand painted	1826-1870	44	3		0.001
Whiteware, blue trans printed	1831-1865	34	3		0.001
Whiteware, poly decalcomania	1901-1950	49	2		0.000
Whiteware, annular	1831-1900	69	5		0.001
Whiteware, sponge/splatter	1836-1870	34	1		0.000
Whiteware, undecorated	1813-1900	87	94		0.009
Yellow ware	1826-1880	54	6		0.001



Architectural Artifact Group

Window glass was widely scattered across the site, albeit in relatively low numbers. There does not appear to be any areas of special density. Window glass is not especially useful in dating, although the glass recovered at 31BW787**7 seems consistent with a mid- to late-nineteenth century structure.

Nails are similarly scattered across the site. Most are heavily corroded and could not be identified to type or even size. There are, however, examples of both machine cut and wire nails on the site. The machine cut nails were commonly in use for the bulk of the nineteenth century, generally 1820 to 1890 (Howard 1989). In contrast, wire nails were popular after 1890 and of course are the primary fastener today (Howard 1989). In contrast, Wells (1998:92) suggests that steel wire nails were introduced far later, about 1891 in the south. Cabak and Inkrot (1997:74) also identify wire nails as a post-1890 development.

Table 5.
Glassware identified by function at 31BW787**7

	pharm	ointment jar	panel bottle	canning jar	jar	bottle	bowl/ lid	tumbler	lamp chimney
aqua	3			1	1	2			
manganese					1		2		
milk		1							
clear			1		2	4	2	5	1

Table 6 examines the machine cut and wire nails that could be clearly identified and measured from these excavations. The results are ambiguous, but this is certainly the result of the small sample size. Nails used for framing and heavy framing are most common, but this is likely the result of these nails being more likely to be preserved. Machine cut and wire nails are both equally common. Cabak and Inkrot (1997:75) suggest this is typical of sites dating from about 1875 to 1899. The remainder of the assemblage, however, does not tend to fully support this date range, suggesting that the assemblage represents a mix of structural remains, an issue we will address below.

Table 6.
Nails recovered from 31BW787**7

Penny Wt.	SAE	Machine Cut	Wire	Total
2d	1"			
3d	1¼"	1		
4d	1½"	1		
5d	1¾"	1		
Small timbers, shingles		**3**	**0**	**3**
6d	2"		2	
7d	2¼"	1	2	
8d	2½"		1	
Sheathing, siding		**1**	**5**	**6**
9d	2¾"		2	
10d	3"	3	1	
12d	3¼"	2	2	
Framing		**5**	**5**	**10**
16d	3½"			
20d	4"	1		
30d	4½"	1		
40d	5"			
50d	5½"			
60d	6"			
Heavy framing		**2**	**0**	**2**
Total		**11**	**10**	**21**

Arms Artifact Group

Only four arms group artifacts were recovered – a percussion cap, two shell casings, and a shotgun shell cap.

The percussion cap is the "top hat" variety commonly used on military arms. Percussion caps were developed between 1808 and 1816 and were adopted for military use by 1845. The copper cap, containing a minute amount of priming compound, was placed on a nipple pierced with a hole leading to the powder charge. The cap was struck by the hammer, mounted above and behind it (Johnson and Haven 1943: 33-35). It had not been fired, so presumably was dropped and lost. The flange on these percussion caps made it easier for soldiers to place the cap on the cone of the musket, both in the heat of battle and also when wearing gloves. The flange also made it easier to remove the cap if it did not fall away naturally (Barry 2006).

The .22 caliber rim fire nickel plated cartridge is marked Hi / U / Speed. The U is the stamp for the Union Metallic Cartridge Company, formed from the Union Metallic Cartridge and Cap Company in 1867. Remington merged with UMC in 1911 (Ball 1997).

This particular ammunition was produced by Remington and the "Hi-U Speed" headstamp was used in 1946 on nickel cartridges (Huegel 2014).

The .32 caliber shell is marked W.R.A. Co./32 W.C.F and is also known as a .32-20 caliber cartridge. These were introduced by the Winchester Repeating Rifle Company for their Model 1873 rifle in 1882. Winchester was principally known by that name between 1883 and 1931, providing a rough date range.

The final specimen, a brass 12 gauge shotgun shell base (originally a paper cartridge) is marked U.M.C. Co./No. 12/Club. This was the first in the "Club" family of shells and was a black powder shell produced by the Union Metallic Cartridge Co. between 1885 and 1891.

Consequently, these items exhibit a very wide spread from perhaps the Civil War through the early twentieth century. They likely reflect the constant use of Orton by both white sportsmen and African American hunters.

Tobacco Artifact Group

Tobacco pipes are not especially common in the assemblage with only five fragmentary pipe bowls being recovered. Four of these are of ball clay. Three are plain and one is ribbed. The fifth example is a stub stem pipe.

Stub stemmed pipes were primarily manufactured in Ohio, Virginia, and North Carolina and date from the nineteenth century (Reid 1976, Walker 1975). The ball clay pipes have a very long temporal range, from at least the late sixteenth century through the early twentieth century. The form of the pipes recovered from 31BW787**7, however, is consistent with the last half of the nineteenth century (Atkinson and Oswald 1969).

Clothing Artifact Group

The Clothing Artifact Group consists of 11 items comprising only 0.8% of the total assemblage. It includes four buttons, one brass suspender clip, three shoe grommets, and one hairpin.

The buttons represent only two types. There is a single example of South's Type 27. This is a domed, machine embossed button with an eye soldered in a hole. It has a diameter of 13.7mm. South (1964) suggests a date range of about 1837 to 1865 based on his excavations at Brunswick and Fort Fisher.

The remaining three buttons are all South's Type 23 convex porcelain buttons with four holes. They are often called Prosser buttons after their inventor or "chinas" by collectors. These buttons were popular from the late 1840s through about 1920. The diameters include 13.4, 14.5, and 15.2 mm.

Buttons 6 mm and under were often used on undergarments or delicate outer garments; buttons between 7 and 13 mm were typically used on shirts, vests, and pants; and larger buttons are usually thought to have been used on coats. Nevertheless, the brass button was most likely a coat or vest button, while the porcelain buttons were all generally associated with shirts or undergarments.

Also present was a single brass suspender slide. While such devices were generally similar to one another and do not exhibit much technological change, it suggests a post-1910 date (Snodgrass 2014).

While most people are familiar with the "bobby pin" invented and 1899 and popular throughout the twentieth century, the specimen from 31BW787**7 is distinct. It is a French hairpin, chignon, or hair pick that consists of metal bent in parallel shanks that do not touch. The overall length is about 35 mm. Its date is uncertain.

The final items, three metal eyelets are likely from shoes or boots, however, the form, has not changed dramatically since the mid-eighteenth century when they began to be used.

Personal Artifact Group

Only two personal artifacts were identified during these investigations and both are

Figure 14. Artifacts recovered from 31BW787**7. A, creamware bowl rim (TU 17); B, blue shell edged pearlware (TU 17); C, blue transfer printed whiteware plate rim (TU 14); blue transfer printed whiteware platter (TU 17); blue-green transfer printed whiteware plate body (TU 17); decalcomania whiteware plate (TU 17); stamped whiteware bowl body (TU 9); molded yellow ware bowl (TU 4); aqua hand applied bottle lip bottle fragment (TU 17); purple glass with luster (TU 17).

Figure 15. Artifacts recovered from 31BW787**7. A, brass suspender clasp (TU 17); B, South's Type 23 porcelain button (TU 17); C, South's Type 27 brass domed button (TU 2, Lv 2); D, hairpin (Test Unit 17); E, black Kidd and Kidd Type Ic4 bead (TU 17); F, blue Kidd and Kidd Type IIa46 bead (TU10, Lv 1); G, fragments of phonograph record (TU 17); H, rat-tail file (TU 1); I, Huyler's candy tong fragments (TU 2); J, bisque porcelain doll face (Test Unit 17).

glass tube beads.

One is a six-sided glass bead measuring 15mm in length and 3mm in diameter. It is classified as a Kidd and Kidd (1970) Type Ic4. The other bead is a round opaque bead measuring about 6mm in diameter. It is classified as a IIa46 bead (Kidd and Kidd 1970).

Beads are most commonly associated with African Americans, although their use extended throughout the eighteenth through early twentieth centuries.

Activities Artifact Group

This final artifact group includes a total of 16 specimens (or 1.2% of the total assemblage). The category is typically broken down into a variety of classes — construction tools, farm tools, toys, fishing gear, storage items, stable and barn items, miscellaneous hardware, and a rather general class called simply, "other" (South 1977:96).

At 31BW787**7 there is only one tool item, a fragment of a flat file with a rat tail handle or tang. The file has a single set of diagonal rows of teeth, parallel to one another and extending across the working face of the file. Coarseness of the teeth could not be determined because of corrosion.

A single toy was recovered – a bisque doll's face fragment.

Also worth noting was a vinyl phonograph record fragment. Although the first vinyl records were introduced in 1930, it wasn't until the Second World War that vinyl became popular. This artifact, however, appears more modern.

Combined Dating

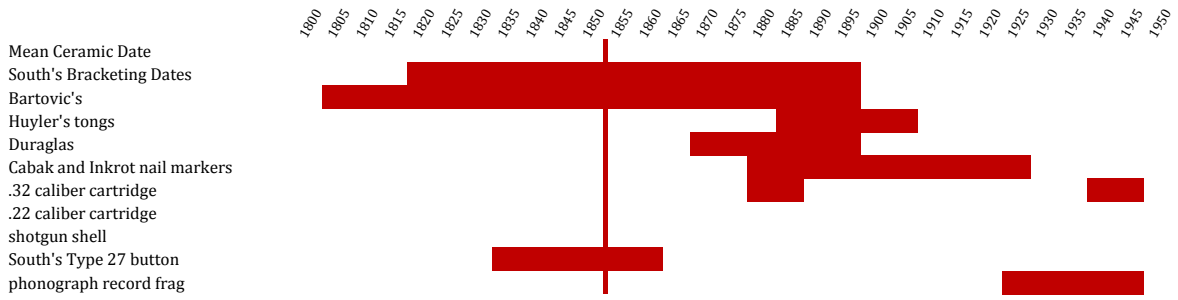
When the assemblage is examined as a whole (Figure 7), it may provide some additional insight, defining perhaps three distinct occupational events.

The first, consisting of early ceramics and a single button, suggests a early nineteenth century occupation.

There are then a cluster of postbellum dates, from about 1870 through the early twentieth century that suggests occupation by freedmen working on Orton.

Finally, there are a few artifacts suggestive of more recent activities, such as the phonograph record, the .32 caliber shell, and even the Huyler's candy tongs. These remains are so ephemeral, however, it is difficult to determine if they represent an actual occupation or simply random roadside trash. We know that the area was used as a movie set, as well as a picnic area for Orton tours during the second half of the twentieth century, so some items may be introduced and not represent actual site occupation. Nevertheless, we know that Eliga

Table 7.
Combined dating methods, 31BW787**7



Robbins and his family lived in the structure from about 1945 through perhaps 1965, at which time moved off the Orton property. The relatively low incidence of late twentieth century artifacts in the side yard, however, is explained by oral history accounts of Eliga's trash pile being located at the bluff edge immediately behind the house, overlooking the rice fields.

It is also reasonable to conclude that an occupation beginning in the antebellum would have extended into the late nineteenth century since maps, primary documentation, and oral histories consistently document the presence of African American laborers on the plantation. While we know that Eliga Robbins occupied the structure about 1945, we don't know if there were earlier white occupants.

Table 8.
Artifact Pattern comparisons

	31BW787**7 Pattern	Revised Carolina Artifact Pattern[1]	Georgia Slave Artifact Pattern[2]	Carolina Slave Artifact Pattern[1]	Yeoman Pattern[3]
Kitchen Group	55.02	51.8 - 65.0	20.0 - 25.8	70.9 - 84.2	40.0 - 61.2
Architectural Group	42.21	25.2 - 31.4	67.9 - 73.2	11.8 - 24.8	35.8 - 56.3
Furniture Group	0.00	0.2 - 0.6	0.0 - 0.1	0.1	0.4
Arms Group	0.31	0.1 - 0.3	0.0 - 0.2	0.1 - 0.3	-
Tobacco Group	0.39	1.9 - 13.9	0.3 - 9.7	2.4 - 5.4	-
Clothing Group	0.69	0.6 - 5.4	0.3 - 1.7	0.3 - 0.8	1.8
Personal Group	0.15	0.2 - 0.5	0.1 - 0.2	0.1	0.4
Activities Group	1.23	0.9 - 1.7	0.2 - 0.4	0.2 - 0.9	1.8

[1] Garrow 1982
[2] Singleton 1980
[3] Drucker et al. 1984

Artifact Pattern

Most historic archaeologists make extensive use of South's artifact groups and classes – sometimes as simply a convenient and logical means of ordering data. Often these functional categories are used for an "artifact pattern analysis" developed by South (1977), who believes that the patterns identified in the archaeological record will reflect cultural processes and will assist in delimiting distinct site types. South has succinctly stated that, "we can have no science without pattern recognition, and pattern cannot be refined without quantification" (South 1977:25). The identification (and occasionally creation) of patterns in historical archaeology is not an end in and of itself, but rather is one of a series of techniques useful for comparing different sites with the ultimate goal of distinguishing cultural processes at work in the archaeological record.

Garrow (1982b:57-66) offers some extensive revisions of South's original patterns, which are incorporated in this study. Even at the level of a fairly simple heuristic devise, pattern analysis has revealed five, and possibly seven, "archaeological signatures." Four are of relevance to the work at Eliga's House – the Revised Carolina Artifact Pattern (Garrow 1982b, South 1977) associated with colonial English refuse disposal; the Carolina Slave Artifact Pattern (Garrow 1982b; Wheaton et al. 1983), representative of nineteenth century slavery; the Georgia Slave Artifact Pattern (Singleton 1980; Zierden and Calhoun 1983), found in association with eighteenth century slave settlements; and the Tenant/Yeoman Farmer Artifact Pattern (Drucker et al.1984).

A careful inspection of these patterns reveals surprisingly no overlap in the major categories of Kitchen and Architecture which suggests that these two categories are particularly sensitive indicators of either site function (including intra-site functional differences) or "cultural differences" (see Cheek et al. 1983:90; Garrow 1982a:4; South 1977:146-154).

Table 8 identifies the pattern found at Eliga's House and compares that pattern to other documented pattern ranges. Given the date range previously discussed, it should not be surprising that no single previously established pattern

matches 31BW787**7. The closest match is the Tenant/Yeoman Pattern, suggesting that the assemblage may be largely comprised on postbellum or freedmen occupation. While there may be nineteenth century slave occupation, it appears to be largely overwhelmed by the later freedmen occupation. Archaeology has not identified a pattern representing late twentieth century Euro-American plantation workers and even if one were available it seems unlikely that it would be clearly recognized given the length and diversity of occupation.

Table 9.
Vessel forms in the kitchen

Ceramic Type	Hollow Ware	Flat Ware	Serving
Creamware	1	2	0
Pearlware	0	1	0
Whiteware	5	14	2
Other Ceramics	2	0	0
Total	8	17	2
%	29.6	63.0	7.4

Status

To explore status we can examine the range of vessel forms: hollow ware, flatware, utilitarian, and serving vessels. Archaeologists believe that higher status individuals during the colonial and antebellum periods, because of their wealth, tended to have diets that allowed or preferred the use of flatware and serving ware. Lower status individuals during this period would be more inclined to eat one-pot meals that necessitate bowl or hollow ware forms.

We also realize that some decorative motifs tend to be more expensive than others. For example, annular wares tend to be very inexpensive. Transfer prints tend to be expensive. Plain wares are problematical since they begin their history as expensive but rather quickly become less expensive.

Although the assemblage is small, Table 9 reveals that flat wares dominate the collection – tablewares that we might expect to see on the planter's table. Hollow wares do comprise about a quarter of the collection, but even these are expected on a planter's table for soups and stews. These results may be an artifact of the small sample size or the result of the assemblage going into the postbellum. Alternatively, it may be an indication that African American slaves at Orton were provided few ceramics purchased specifically for their households and instead relied on discards from the main house.

Table 10.
Proportion of motifs in the kitchen assemblage

Type	Expensive Motifs (%)	Inexpensive Motifs (%)
Porcelain	22.2	77.8
Creamware	0.0	100.0
Pearlware	0.0	100.0
Whiteware	5.5	94.5

When we examine the ceramics by function (Table 9), we see that overall the assemblage is dominated by flat wares. They might also have been used in the kitchen for slave meals or for preparation. Fully 8% of the assemblage consists of serving vessels, with nearly 2% being utilitarian – both vessel forms that we expect in a kitchen setting.

We gain a somewhat different perspective if we examine the vessel motifs (Table 10). There we see that most of the ceramics – regardless of form – consist of relatively inexpensive designs. Even if undecorated wares are ignored, the less expensive motifs still dominate the collections. Such small collections of expensive wares are present that it again seems reasonable to interpret their presence as coming from the master's table.

Summary

Site 31BW787**7 is complex, covering at least 1,000 feet along the bluff edge overlooking Orton's rice fields. Historic documentation reveals that a number of slave structures were found in this area during the antebellum and the area continued to be used by African American freedmen in the postbellum. By the mid-twentieth century the standing structure was being used by Eliga Robbins, a white carpenter and maintenance workers at Orton.

Consequently, the investigations provide insight into the archaeology of 31BW787**7, but *cannot be viewed as representative of the site as a whole*.

The architectural remains indicate a distinct style of craftsmanship that was not only used at Orton, but also for structures at nearby Lilliput Plantation. Whether this reflects a regional style or simply the shared use of local craftsmen between plantations is uncertain. Nevertheless, the standing structure at 31BW787**7 reflects multiple episodes of enlargement and modification. These likely reflect not only changes made for various movie sets, but more fundamentally the changes necessary to convert the structure from one used by African American laborers to one felt suitable for Euro-American workers.

Oral history indicates that Eliga Robbins began working at Orton after he was discharged from the military, probably about 1945. He and family lived at this structure until about 1965 when he built a house off the plantation (although he continued working at Orton until his retirement). Eliga Robbins died in 1997, at which time his death certificate lists his occupation as logging.

The archaeology also reveals addition of sanitary facilities, added about 1956 during the structure's use by Eliga Robbins.

The investigations failed to identify any significant features within the proposed drain field, so its eventual construction is not likely to adversely affect the integrity of the site. The work did, however, document that at least one posthole was present. There is no evidence of extensive disturbance in the immediate area. For example, we found no evidence that the A horizon had been removed or that the site was cultivated. It is likely that as larger areas are examined additional postholes and features will be encountered.

Archaeology also revealed a wide range of artifacts, representing over a hundred years of occupation, could be identified. Moreover, both bone and wood charcoal were recovered from the excavations.

The most significant contribution is to document the need for additional investigations should further activities be planned for the area of 31BW787**7. The site has clear potential for intact features and significant archaeological remains documenting African American lifeways at Orton Plantation. Any construction to the east of the standing structure should receive additional archaeological investigations since oral history tells us it was in this area that Eliga had his trash deposit.

Sources Cited

Atkinson, David and Adrian Oswald
1969 London Clay Tobacco Pipes. *Journal of the Archaeological Association Third Series*: 32.

Ball, Donald B.
1997 *An Introduction to Metallic Cartridge Case Terminology, Identification, and Headstamps*. Ohio Valley Historical Archaeology 12:112-129.

Barry, Craig L.
2006 *The Civil War Musket: A Handbook for Historical Accuracy*. Watchdog, Warren, Michigan.

Bartovics, Albert
1981 *The Archaeology of Daniels Village: an Experiment in Settlement Archaeology*. Unpublished Ph.D. dissertation, Department of Anthropology, Brown University, Providence.

Cabak, Melanie A. and Marie M. Inkrot
1997 *Old Farm, New Farm*. Research Paper 9. Occasional Papers of the Savannah Archaeological Research Program, Savannah River Plant, SC Institute of Archaeology and Anthropology, Aiken, South Carolina.

Cheek, Charles D., Amy Friedlander, Cheryl Holt, Charles H. LeeDecker, Teresa Ossim
1983 *Archaeological Investigations at the National Photographic Interpretation Center Addition, Washington. D.C. Navy Yard Annex*. Soils Systems, Inc., Alexandria, Virginia.

Cushion, John P.
1976 *Pottery and Porcelain Tablewares*. Studio Vista, London.

Drucker, Lesley, Ronald Anthony, Susan Jackson, Susan Krantz, and Carl Steen
1984 *An Archaeological study of the Little River-Buffalo Creek Special Land Disposal Tract.* Carolina Archaeological Services, Columbia, South Carolina. Submitted to U.S. Army Corps of Engineers, Savannah District, Savannah Georgia.

Garrow, Patrick H.
1982a *Archaeological Investigations on the Washington, D.C. Civic Center Site*. Soil Systems, Inc., n.p. Submitted to Historic Preservation Office, Department of Housl.ng and Community Development, Government of the District of Columbia.

1982b Artifact Analysis. In *Archaeological Investigations on the Washington. D.C. Civic Center Site*, edited by Patrick Garrow, pp.57-167. Soil Systems, Inc., n. p. Submitted to Historic Preservation Office, Government of the District of Columbia.

Godden, Geoffrey A.
1964 *Encyclopaedia of British Pottery and Porcelain Marks*. Schiffer Publishing, Exton, Pennsylvania.

1985 *English China*. Barrie and Jenkins, London.

Howard, Hugh
1989 *How Old Is This House?: A Skeleton Key to Dating and Identifying Three Centuries of American Houses*. Noonday Press, New York.

Huegel, Roger E.
2014 *.22 Rim Fire Boxes of the U.S.A. ID. Reference Remington*. np., np.

Johnson, Melvin M., Jr. and Charles T. Haven
1943 *Ammunition: Its History, Development and Use*. William Morrow, New York.

Jones, Olive R.
1986 *Cylindrical English Wine and Beer Bottles, 1735-1850*. National Historic Parks and Sites Branch, Quebec.

Jones, Olive R. and Catherine Sullivan
1985 *The Parks Canada Glass Glossary for the Description of Containers, Tableware, Flat Glass, and Closures*. National Historic Parks and Sites Branch, Parks Canada, Quebec.

Kidd, Kenneth E. and Martha A. Kidd
1970 *A Classification System for Glass Beads for the Use of Field Archaeologists.* Occasional Papers 1. Canadian Historic Sites, Ottawa.

Knott, Laura L., Jane Jacobs, Christina Osborn, Davyd F. Hood
2013 Orton Plantation Boundary Increase and Additional Documentation. National Register of Historic Places, Ms. on file, North Carolina Department of Cultural Resources, Office of Archives and History, Raleigh.

McKearin, George L. and Helen McKearin
1972 *American Glass*. Crown Publishers, New York.

McNally, Paul
1982 Table Glass in Canada, 1700-1850. *Parks Canada History and Archaeology* 60.

Miller, George
1980 Classification and Economic Scaling of 19th Century Ceramics. *Historical Archaeology* 14:1-40.

1991 A Revised Set of CC Values for Classification and Economic Scaling of English Ceramics from 1787 to 1880. *Historical Archaeology* 25(1):1-25.

Noël Hume, Ivor
1978 *A Guide to Artifacts of Colonial America*. Alfred A. Knopf, New York.

Norman-Wilcox, Gregor
1965 Pottery and Porcelain. In *The Concise Encyclopedia of American Antiques*, edited by Helen Comstock, p.132-161. Hawthorn, New York.

Peirce, Donald C.
1988 *English Ceramics: The Frances and Emory Cocke Collection*. High Museum of Art, Atlanta.

Price, Cynthia
1979 *19th Century Ceramics in the Eastern Ozark Boarder Region*. Monograph Series 1. Center of Archaeological Research, Southwest Missouri University, Springfield.

Reid, C. S.
1976 Clay Pipes in the Upper Great Lakes: The Ermatinger Assemblage. *Northeast Historical Archaeology* 5(1):1-11.

Salwen, Bert and Sarah T. Bridges
1977 Cultural Differences and the Interpretation of Archaeological Evidence, Problems with Dates. *Research and Transactions of the New York Archaeological Association* 17(1):165-173.

Singleton, Theresa
1980 *The Archaeology of Afro-American Slavery In Coastal Georgia: A Regional Perception of Slave Household and Community Patterns*. Ph.D. dissertation, University of Florida. University Microfilms, Ann Arbor.

Smith, E. Ann
1981 Glassware from a Reputed 1745 Siege Debris Context at the Fortress of Louisbourg. *Parks Canada History and Archaeology* 55:75-255.

Snodgrass, Mary Ellen
2014 *World Clothing and Fashion: An Encyclopedia of History, Culture, and Social Influence.* Routledge, London.

South, Stanley
1964 Analysis of the Buttons from Brunswick Town and Fort Fisher. *The Florida Anthropologist* 17(2):113-133.

1977 *Method and Theory in Historical Archaeology*. Academic Press, New York.

Toulouse, Julian H.
1971 *Bottle Makers and Their Marks.* Thomas Nelson, Inc., New York.

Trinkley, Michael and Debi Hacker
2012 *Historical Synopsis and Archaeological Reconnaissance of Orton and Kendal Plantations, Brunswick County, North Carolina.* Research Contribution 546. Chicora Foundation, Inc., Columbia.

2014 *Bioanthropological Investigation of the Vaults at Orton Plantation, Brunswick County, North Carolina.* Research Contribution 560. Chicora Foundation, Inc., Columbia.

Vose, Ruth Hurst
1975 *The Antique Collector's Guides: Glass*. Crescent Books, New York.

Walker, Ian
1975 The American Stub-Stemmed Clay Tobacco Pipe: A Survey of its Origins, Manufacture, and Distribution. *The Conference of Historic Site Archaeology Papers* 9: 97-128.

Walkowski, Jennifer
2011 *The Huyler Building National Register of Historic Places Nomination*. Clinton Brown Company Architectural ReBuild, Buffalo, New York.

Walton, Peter
1976 *Creamware and Other English Pottery at Temple Newsam House, Leeds: A Catalogue of the Leeds Collection*. Manningham Press, Bradford, England.

Warren, Phelps
1970 *Irish Glass: The Age of Exuberance*. Faber and Faber, London.

Wells, Tom
1998 Nail Chronology: The Use of Technologically Derived Features. *Historical Archaeology* 32(2):78-99.

Wesler, Kit W.
2014 Assessing Precision in Formula Dating. *Historical Archaeology* 48:173-181.

Wheaton, Thomas R., Amy Friedlander, and Patrick Garrow
1983 *Yaughan and Curriboo Plantations: Studies in Afro-American Archaeology*. Soil Systems, Inc., Marietta, Georg.la. Submitted to National Park Service, Archaeological Services Branch, Atlanta, Georgia. Contract Number C-5950(79).

Zierden, Martha and Jeanne Calhoun
1983 *An Archaeological Assessment of the Greenfield Borrow Pit*. The Charleston Museum, Charleston, South Carolina.

Archaeological Investigations

Historical Research

Preservation

Education

Interpretation

Heritage Marketing

Museum Support Programs

Chicora Foundation, Inc.
PO Box 8664 ▪ 861 Arbutus Drive
Columbia, SC 29202-8664
Tel: 803-787-6910
www.chicora.org